

FIG. 1

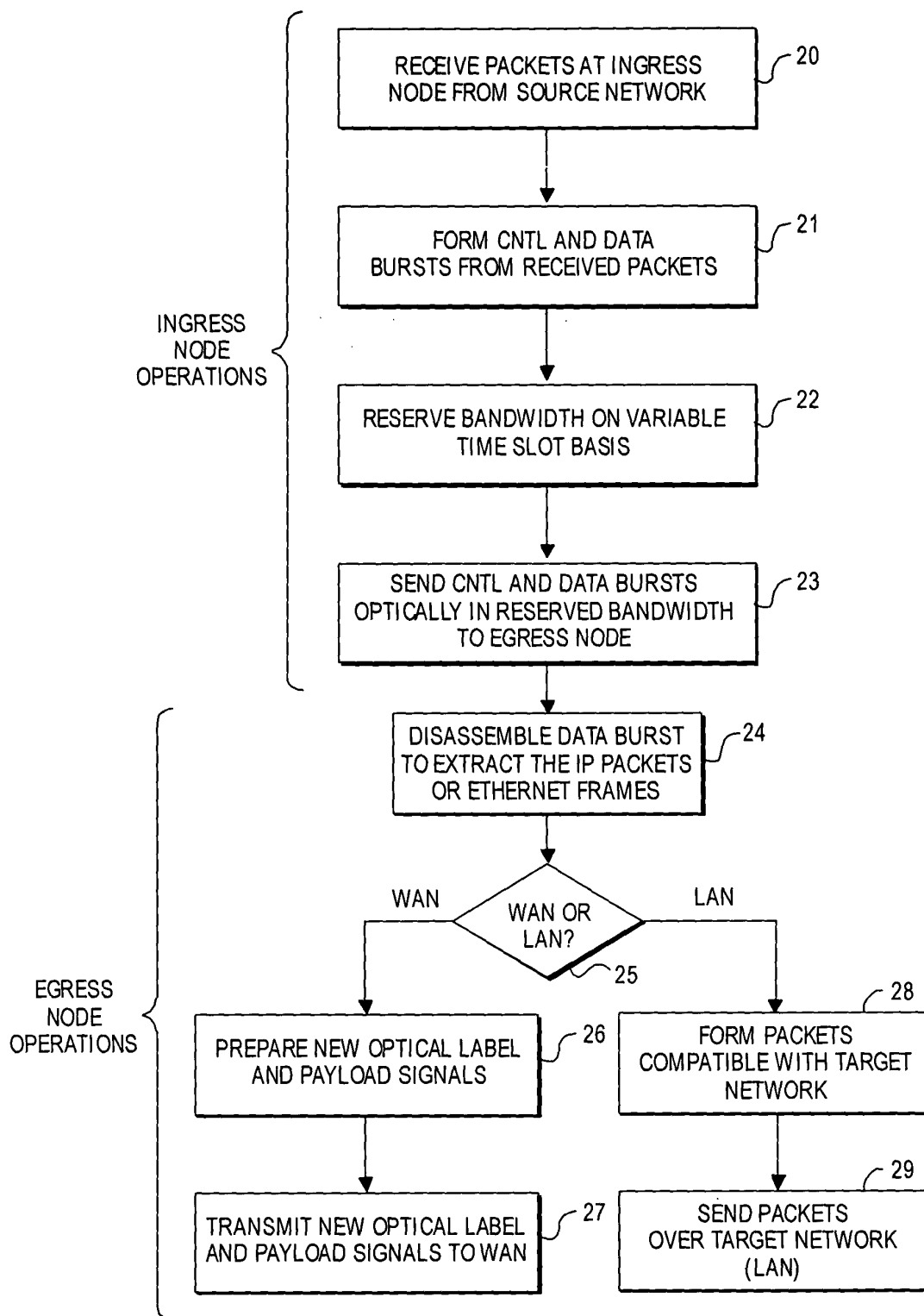


FIG. 2

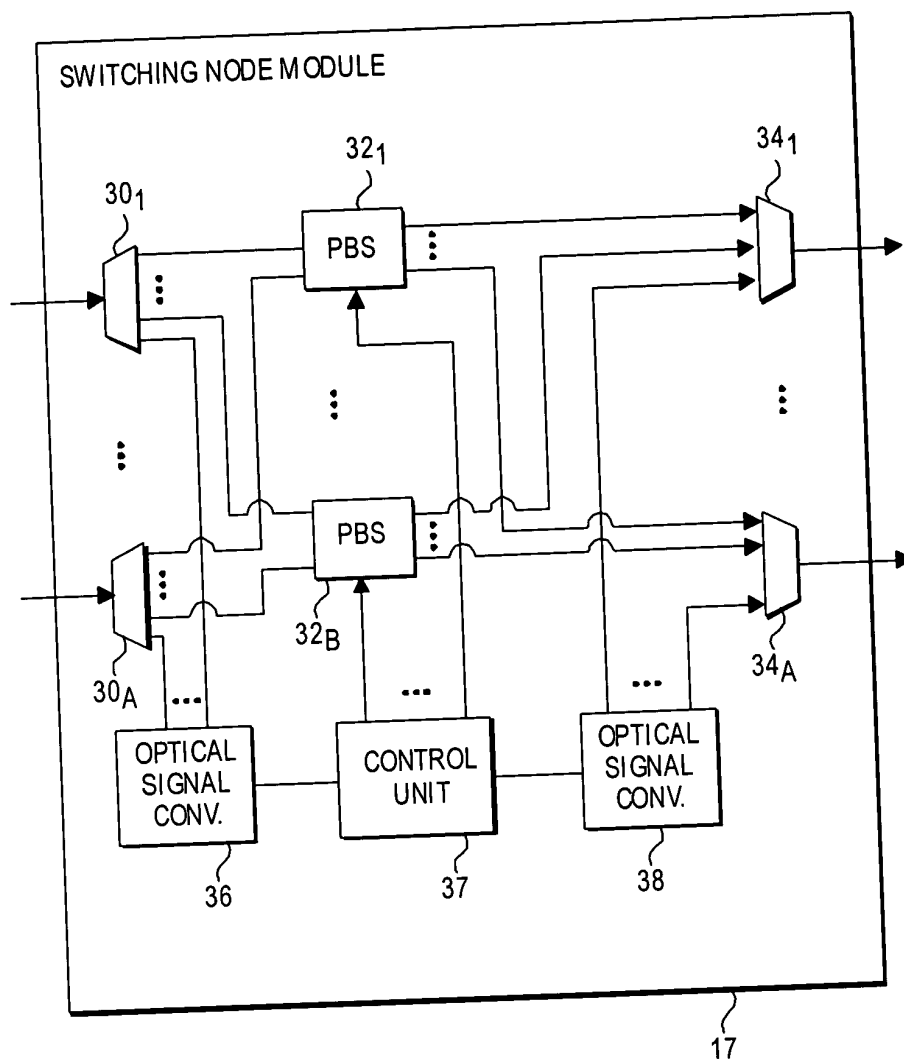


FIG. 3

GMPLS BASED ARCHITECTURE FOR PBS

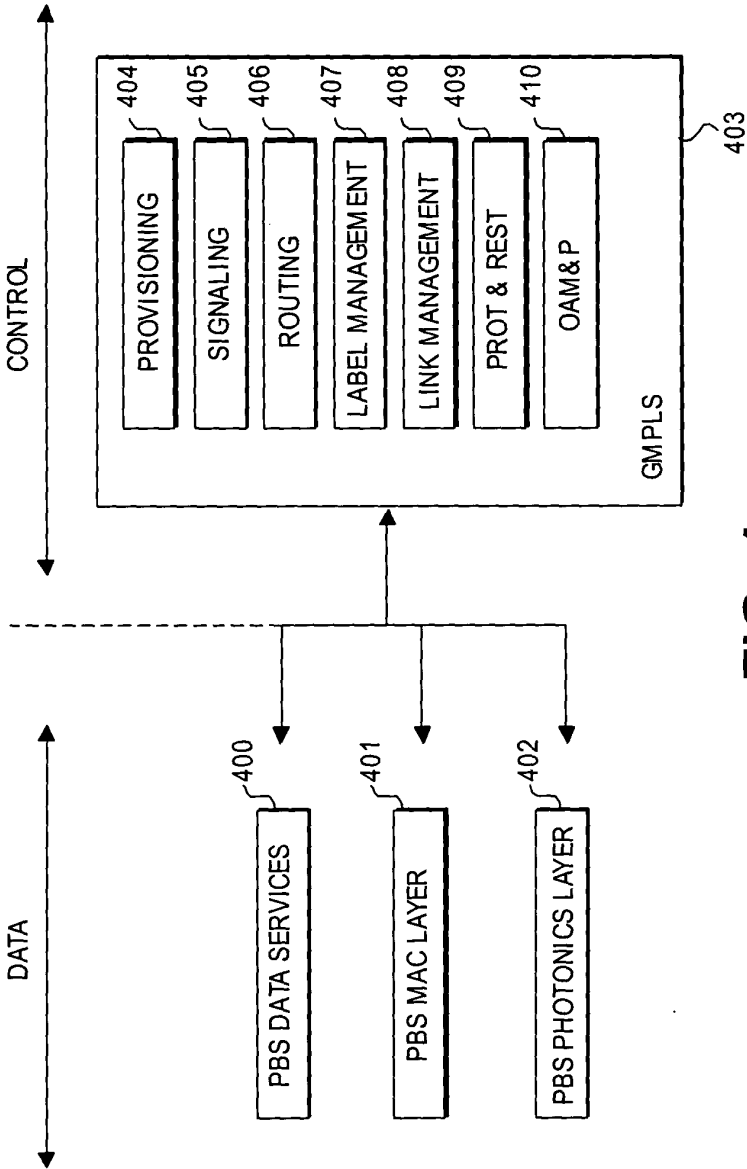


FIG. 4

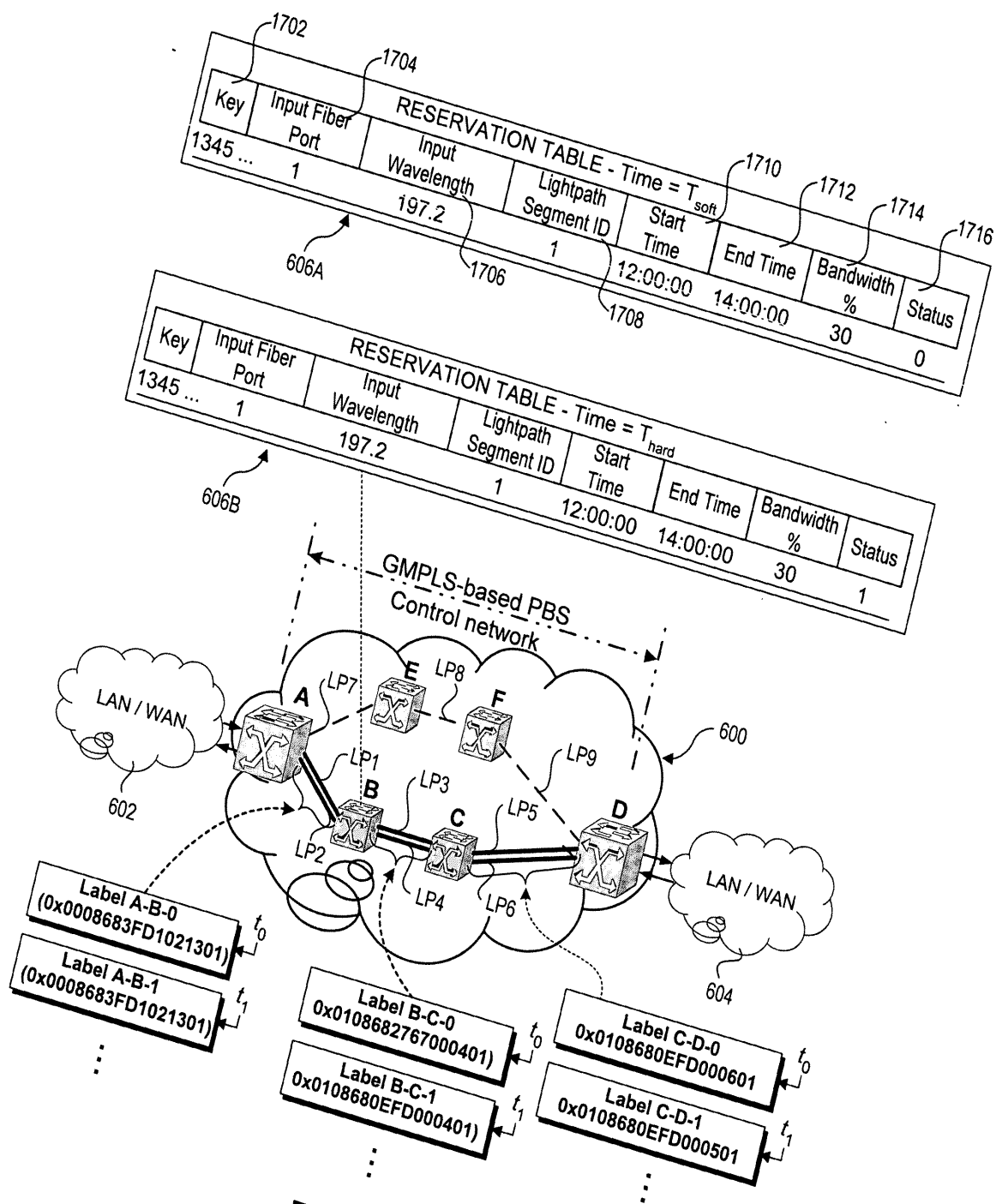


FIG. 6

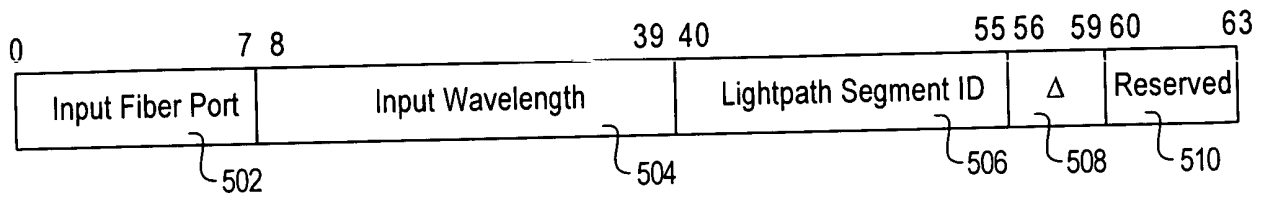


FIG. 5

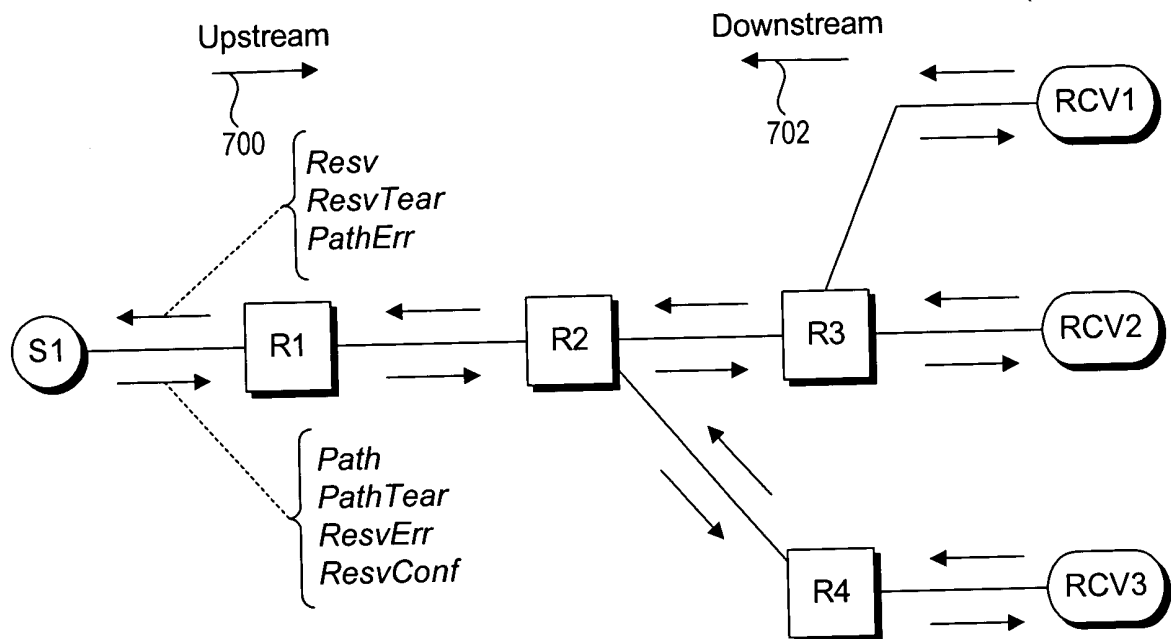


FIG. 7

```

<Path Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  <TIME_VALUES> ~ 810
  [ <EXPLICIT_ROUTE> ] ~ 811
  <GENERALIZED_PBS_LABEL_REQUEST> ~ 812
  [ <LABEL_SET> ... ] ~ 814
  [ <ADMIN_STATUS> ] ~ 816
  <DESTINATION_PBS_ADDRESS> ~ 818
  <SOURCE_PBS_ADDRESS> ~ 820
  [ <POLICY_DATA> ... ] ~ 822
  <sender descriptor> ~ 824

```

or

FIG. 8a

800

Sender descriptor for a unidirectional PBS light-path:

```

▶<sender descriptor> ::=
  <LSP_TUNNEL_IPv4_SENDER_TEMPLATE> ~ 826
  <PBS_SENDER_TSPEC> ~ 828

```

FIG. 8b

824A

Format of the sender descriptor for a bi-directional PBS light-path

```

▶<sender descriptor> ::=
  <LSP_TUNNEL_IPv4_SENDER_TEMPLATE> ~ 826
  <PBS_SENDER_TSPEC> ~ 828
  <UPSTREAM_LABEL> ~ 830

```

FIG. 8c

824B

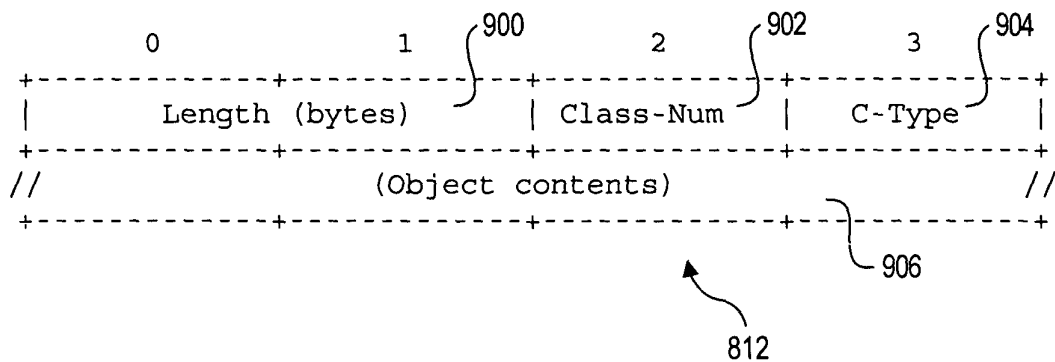


FIG. 9

```

<Resv Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  <TIME_VALUES> ~ 810
  [ <IPv4_RESV_CONFIRM> ] ~ 1004
  [ <ADMIN_STATUS> ] ~ 816
  [ <POLICY_DATA> ... ] ~ 822
  <STYLE> ~ 1006
  <FF flow descriptor> ~ 1008

```

FIG. 10a

```

<FF flow descriptor> ::=
  <PBS_FLOWSPEC> ~ 1010
  <LSP_TUNNEL_IPv4_FILTER_SPEC> ~ 1012
  <GENERALIZED_PBS_LABEL> ~ 1014

```

FIG. 10b


```

<PathTear Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  [ <ADMIN_STATUS> ] ~ 816
  <sender descriptor> ~ 824

```

FIG. 11

1100

```

<ResvTear Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  [ <ADMIN_STATUS> ] ~ 816
  <STYLE> ~ 1006
  <FF flow descriptor > ~ 1008

```

FIG. 12

1200

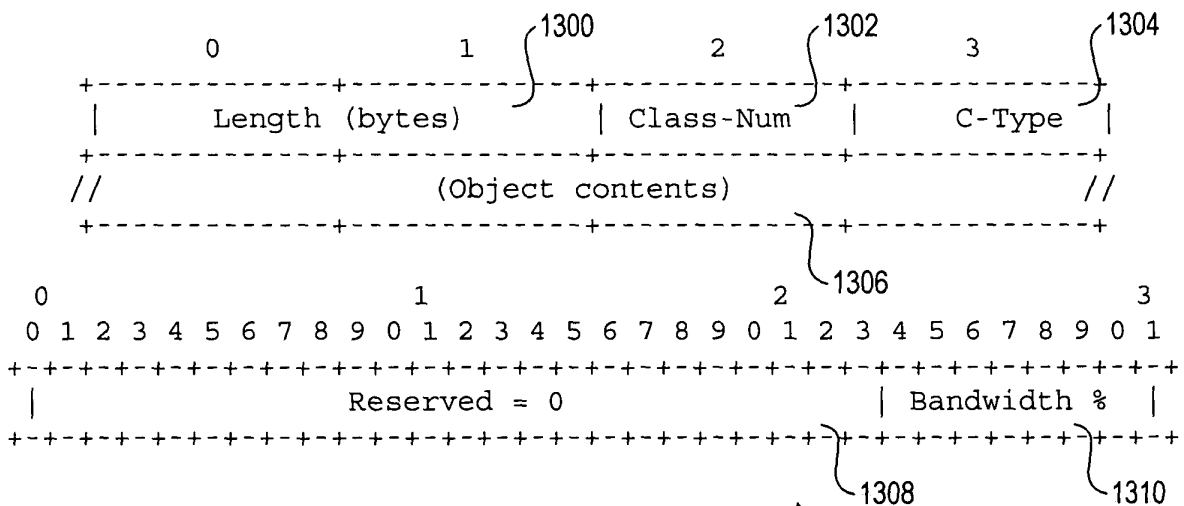
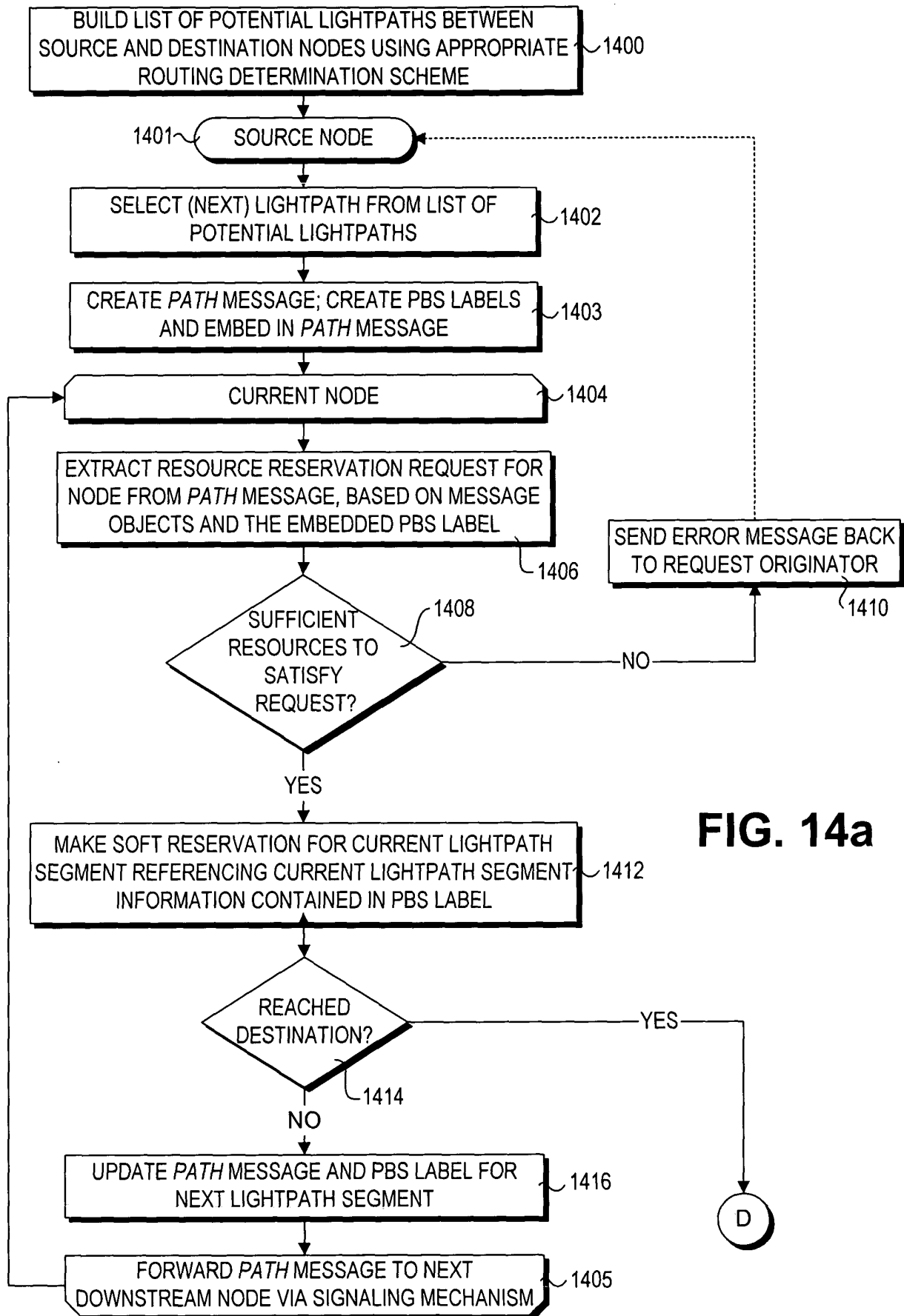


FIG. 13

1308
1310
828, 1008



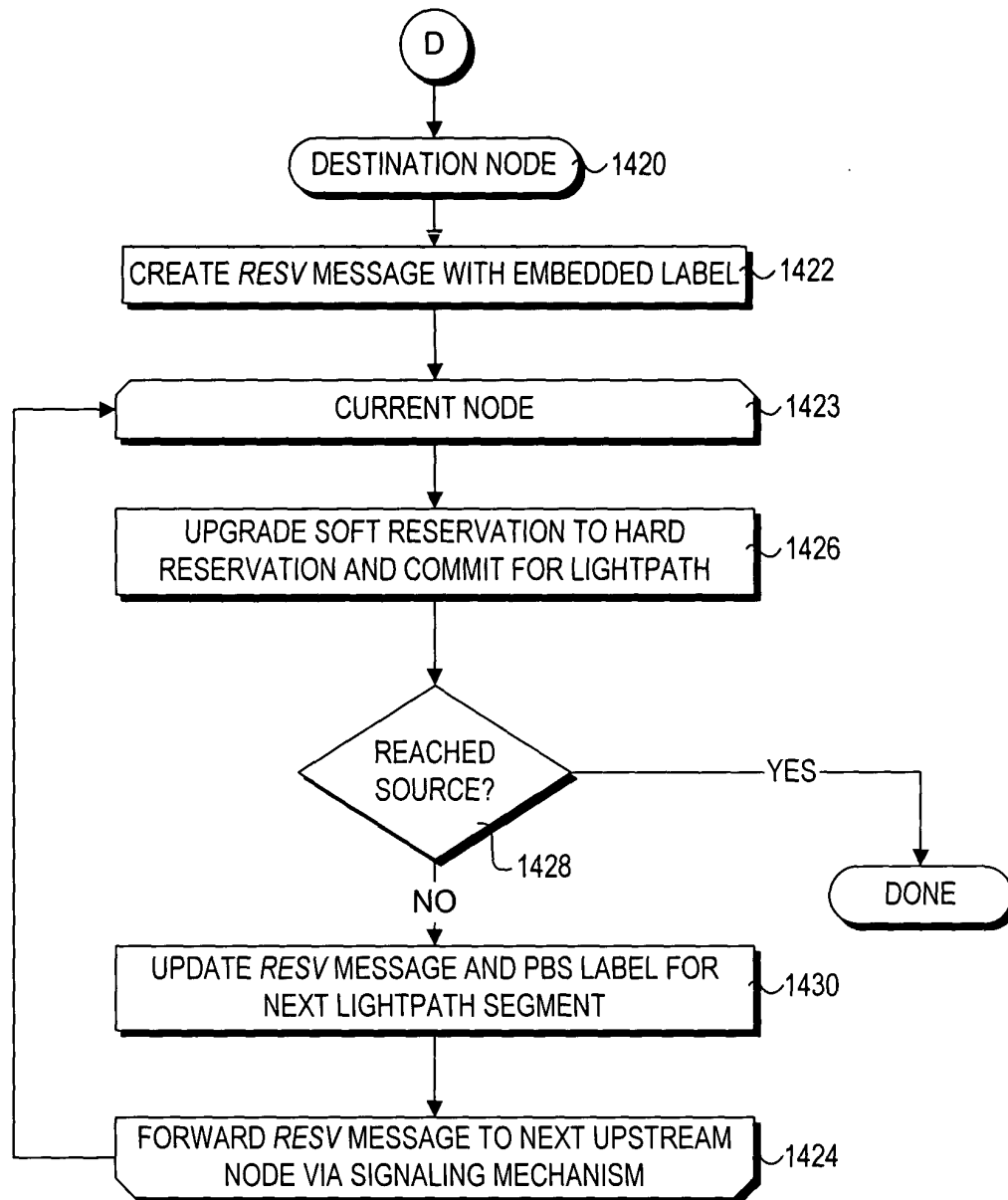


FIG. 14b

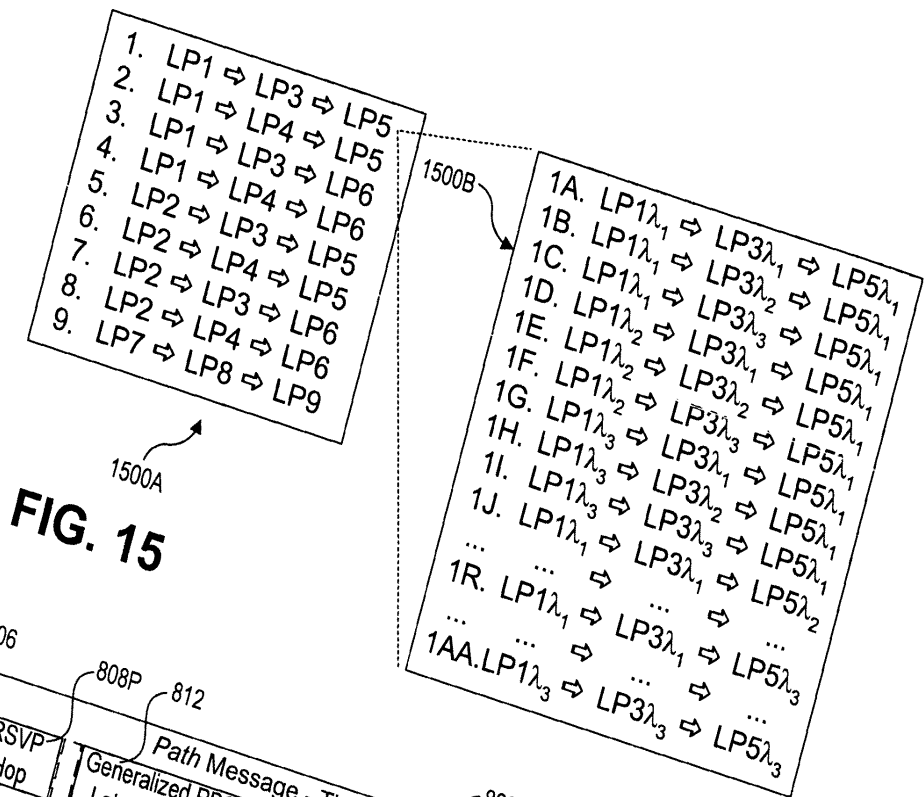


FIG. 15

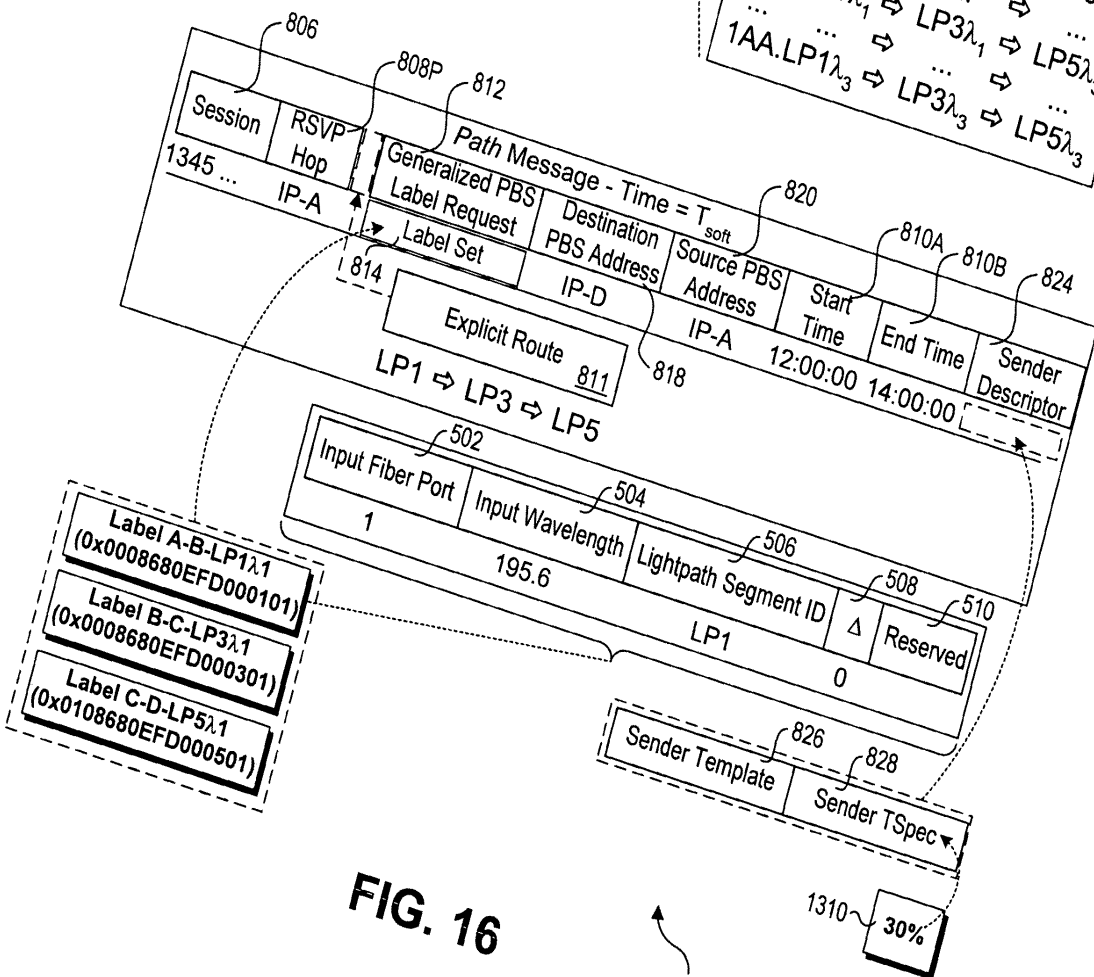


FIG. 16

RESERVATION TABLE							
Key (Session)	Input Fiber Port	Input Wavelength	Lightpath Segment ID	Start Time	End Time	Bandwidth %	Status
... 1005	1	196.4	1	12:00:00	15:00:00	20	1
... 1027	1	197.2	1	11:00:00	12:00:00	30	1
... 1045	2	197.2	2	12:00:00	13:00:00	35	1
... 1115	1	196.4	1	12:00:00	14:00:00	15	1
... 1146	1	195.6	1	12:45:00	14:30:00	40	1
... 1178	2	196.4	2	12:00:00	14:00:00	10	1
... 1222	1	197.2	1	13:00:00	14:00:00	25	1
... 1256	1	195.6	1	12:30:00	13:45:00	25	1
... 1313	2	196.4	2	11:30:00	12:15:00	20	0
... 1345	1	195.6	1	12:00:00	14:00:00	30	0

1700

FIG. 17a

... 1146	1	195.6	1	12:45:00	14:30:00	40	1
... 1256	1	195.6	1	12:30:00	13:45:00	25	1
... 1345	1	195.6	1	12:00:00	14:00:00	30	0

FIG. 17b

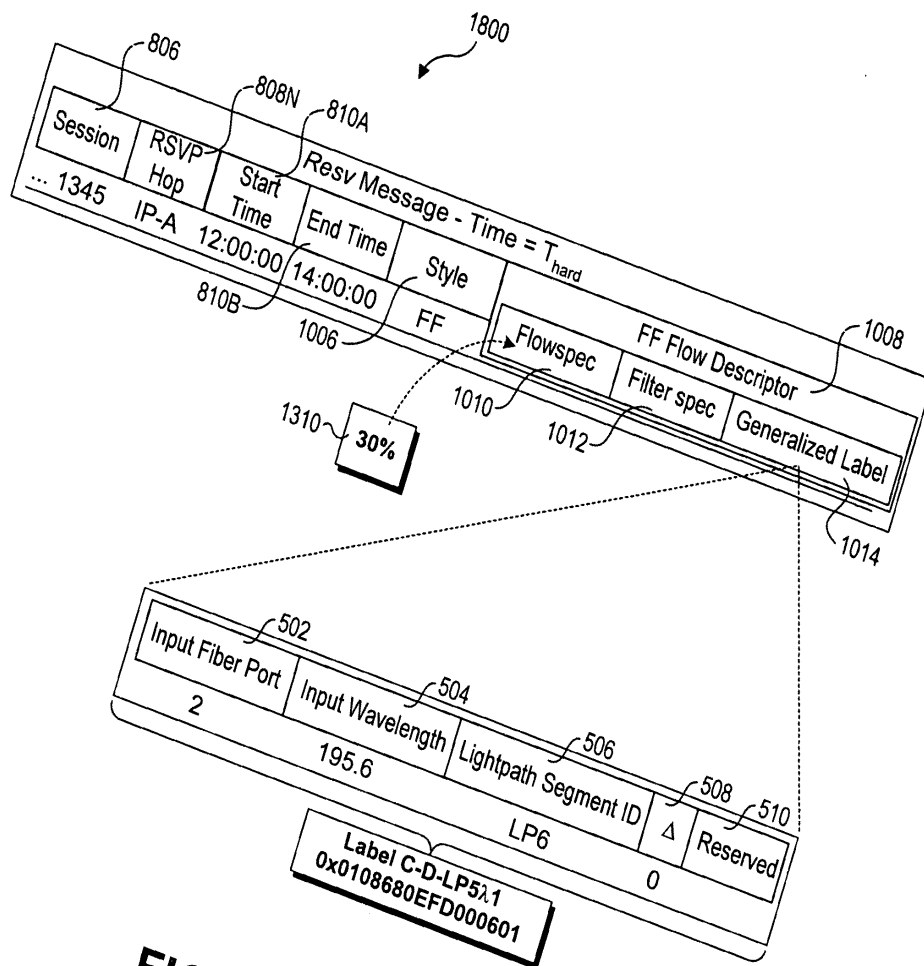


FIG. 18

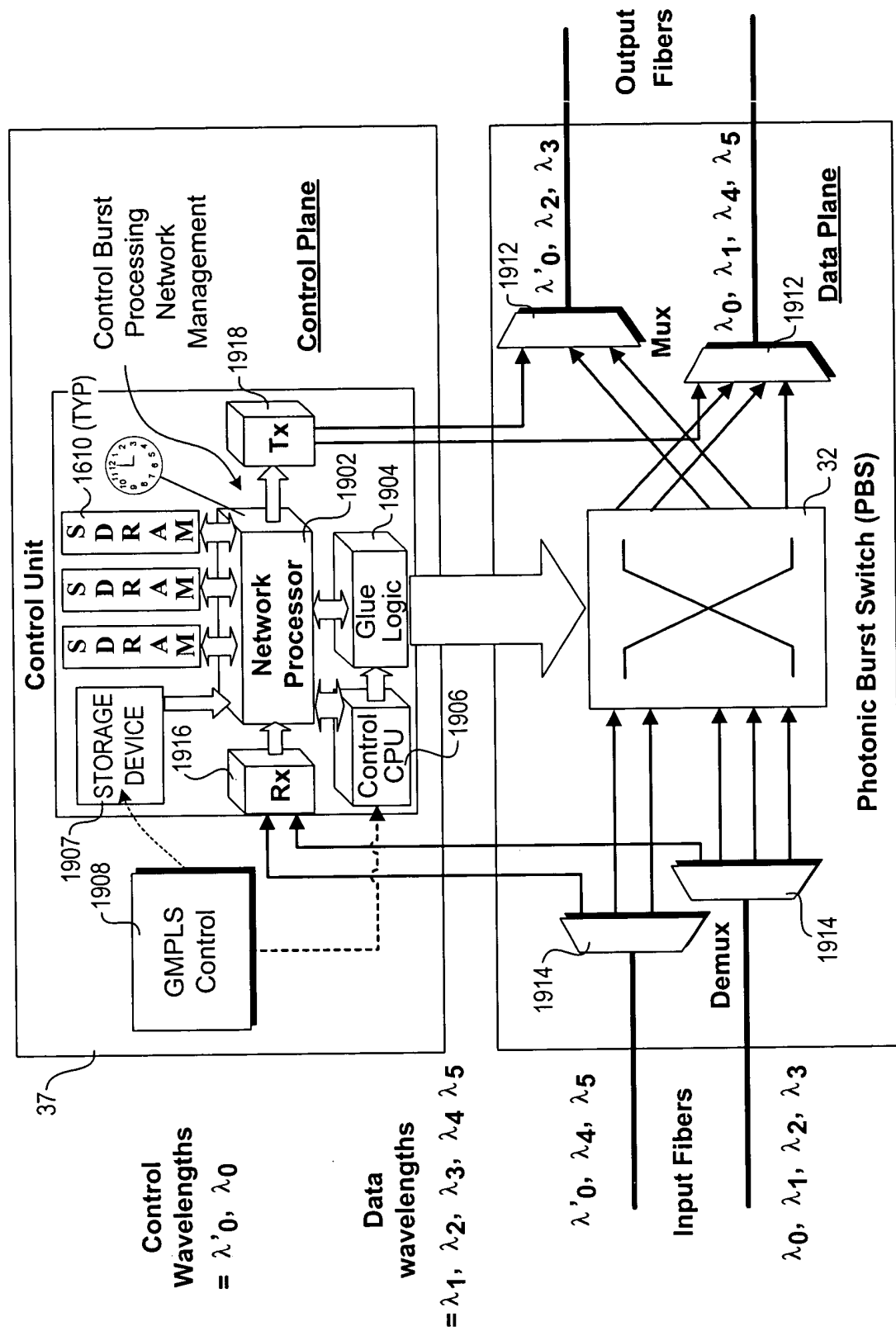


FIG. 19